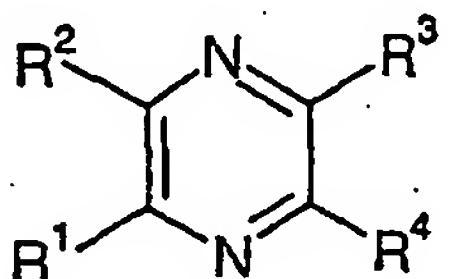


Claims

## 1. A compound of formula (I)



5

I

and pharmaceutically acceptable salts thereof, in which

R<sup>1</sup> and R<sup>2</sup> independently represent phenyl, thienyl or pyridyl each of which is independently optionally substituted by one or more groups represented by Z;

10

Z represents a C<sub>1-8</sub>alkyl group, a C<sub>1-6</sub>alkoxy group, hydroxy, halo, trifluoromethyl, trifluoromethylthio, trifluoromethoxy, trifluoromethylsulphonyl, nitro, mono or di C<sub>1-3</sub>alkylamido, C<sub>1-3</sub>alkylthio, C<sub>1-3</sub>alkylsulphonyl, C<sub>1-3</sub>alkylsulphonyloxy, C<sub>1-3</sub>alkoxycarbonyl, carboxy, cyano, carbamoyl, mono or di C<sub>1-3</sub>alkyl carbamoyl, sulphamoyl, acetyl, an aromatic 15 heterocyclic group which is optionally substituted by one or more halo, C<sub>1-4</sub>alkyl, trifluoromethyl or trifluoromethoxy and a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more heteroatoms selected from nitrogen, oxygen or sulphur wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups, hydroxy, fluoro, benzyl or an amino group -NR<sup>x</sup>R<sup>y</sup> in which R<sup>x</sup> and R<sup>y</sup> independently 20 represent H or C<sub>1-4</sub>alkyl;

R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula (CH<sub>2</sub>)<sub>n</sub>COOR<sup>7</sup> in which n is 0, 1, 2, 3 or 4; and R<sup>7</sup> represents a C<sub>4-12</sub>alkyl group, a C<sub>3-12</sub>cycloalkyl group or a (C<sub>3-12</sub>cycloalkyl)C<sub>1-3</sub>alkyl- group each of which is optionally substituted by one or more of 25 the following: a C<sub>1-6</sub>alkyl group; fluoro, amino or hydroxy, or

R<sup>7</sup> represents a group -(CH<sub>2</sub>)<sub>a</sub>phenyl in which a is 0, 1, 2, 3 or 4 and the phenyl group is optionally substituted by one or more groups represented by Z which may be the same or different or

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R<sup>7</sup> represents a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more of the following: oxygen, sulphur or nitrogen; wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups, C<sub>1-3</sub>acyl groups, 5 hydroxy, amino or benzyl; or

R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula -(CH<sub>2</sub>)<sub>o</sub>-O-(CH<sub>2</sub>)<sub>p</sub>-R<sup>8</sup> in which o and p independently represent an integer 0, 1, 2, 3 or 4 with the proviso that neither R<sup>3</sup> or R<sup>4</sup> is methoxy, and R<sup>8</sup> represents a C<sub>1-12</sub>alkyl group or R<sup>8</sup> represents phenyl optionally 10 independently substituted by one or more Z groups or R<sup>8</sup> represents an aromatic heterocyclic group or a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more of the following: oxygen, sulphur or nitrogen wherein each of these rings is optionally substituted by one or more groups represented by Z which may be the same or different;

15 R<sup>3</sup> and R<sup>4</sup> independently represent a C<sub>1-12</sub>alkyl group optionally substituted by one or more fluoro, hydroxy, or amino, provided that if R<sup>3</sup> is C<sub>1-4</sub>alkyl then R<sup>4</sup> cannot be C<sub>1-4</sub>alkyl or q cannot be 0 in R<sup>4</sup>, or

20 R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula -(CH<sub>2</sub>)<sub>q</sub>R<sup>9</sup> in which q is 0, 1, 2, 3 or 4, provided that if q is 0 in R<sup>3</sup> then q cannot be 0 in R<sup>4</sup>, and vice versa, R<sup>9</sup> represents a C<sub>3-12</sub>cycloalkyl group, phenyl, an aromatic heterocyclic group or a saturated or partially unsaturated 5 to 12 membered heterocyclic group containing one or more of the following: 25 oxygen, sulphur or nitrogen, wherein each of these rings is optionally substituted by one or more groups represented by Z which may be the same or different or each of these rings is substituted by phenyl which is optionally substituted by one or more C<sub>1-4</sub>alkyl, a C<sub>1-4</sub>alkoxy, hydroxy, halo or trifluoromethyl.

30 R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula -(CH<sub>2</sub>)<sub>m</sub>-O-(CO)-R<sup>10</sup> in which m represents an integer 0, 1, 2, 3 or 4, in which R<sup>10</sup> represents a C<sub>1-12</sub>alkyl group optionally substituted by one or more fluoro, hydroxy, or amino or R<sup>10</sup> represents a group of formula -(CH<sub>2</sub>)<sub>q</sub>R<sup>9</sup> in which

q and R<sup>9</sup> is as previously described;

or

R<sup>3</sup> and R<sup>4</sup> are identical and represent a group of formula CONR<sup>11</sup>R<sup>12</sup>

in which

- 5 R<sup>11</sup> and R<sup>12</sup> independently represent a C<sub>1-6</sub>alkyl group;
- an (amino)C<sub>1-4</sub>alkyl- group in which the amino is optionally substituted by one or more C<sub>1-3</sub>alkyl groups;
- a (C<sub>3-12</sub>cycloalkyl)(CH<sub>2</sub>)<sub>g</sub>- group wherein g is 0, 1, 2 or 3 wherein the cycloalkyl is optionally substituted by one or more fluoro, hydroxy, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkoxy, C<sub>1-3</sub>alkoxycarbonyl, trifluoromethyl, amino or trifluoromethoxy;
- 10 a group -(CH<sub>2</sub>)<sub>r</sub>(phenyl)<sub>s</sub> in which r is 0, 1, 2, 3 or 4, s is 1 when r is 0 otherwise s is 1 or 2 and the phenyl groups are optionally independently substituted one or more groups represented by Z;
- naphthyl;
- 15 anthracenyl;
- a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more heteroatoms selected from nitrogen, oxygen or sulphur wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups, hydroxy, fluoro, trifluoromethyl, benzyl or an amino group -NR<sup>x</sup>R<sup>y</sup> in which R<sup>x</sup> and R<sup>y</sup> independently represent H or C<sub>1-4</sub>alkyl;
- 20 1-adamantylmethyl;
- a group - (CH<sub>2</sub>)<sub>t</sub> Het in which t is 0, 1, 2, 3 or 4, and the alkylene chain is optionally substituted by one or more C<sub>1-3</sub>alkyl groups and Het represents an aromatic heterocyclic group optionally substituted by one, two or three groups selected from a C<sub>1-5</sub>alkyl group, a C<sub>1-5</sub>alkoxy group or halo;
- 25 or R<sup>11</sup> represents H and R<sup>12</sup> is as defined above;
- or R<sup>11</sup> and R<sup>12</sup> together with the nitrogen atom to which they are attached represent a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one nitrogen and optionally one of the following: oxygen, sulphur or an additional nitrogen; wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups,
- 30 hydroxy, fluoro, trifluoromethyl, trifluoromethoxy, benzyl, C<sub>1-6</sub>alkanoyl or an amino group -NR<sup>x</sup>R<sup>y</sup> in which R<sup>x</sup> and R<sup>y</sup> independently represent H or C<sub>1-4</sub>alkyl;

with the provisos that

1) when  $R^3$  and  $R^4$  are both a group of formula  $CONR^{11}R^{12}$  then they do not represent carbamoyl, or mono or di  $C_{1-3}$ alkylcarbamoyl and

2) when  $R^1$ ,  $R^2$  and  $R^3$  each represent phenyl then  $R^4$  is not benzyl.

3) when one of  $R^3$  or  $R^4$  is  $C_{1-4}$ alkyl then the other is not a group  $-(CH_2)_qR^9$  in which  $q$  is 0.

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2. A compound according to claim 1, wherein  $R^1$  and  $R^2$  are phenyl optionally substituted by one or more groups  $Z$ .

3. A compound according to any of the preceding claims, wherein  $R^1$  and  $R^2$  are both 4-chlorophenyl.

4. A compound according to any of the preceding claims, wherein  $R^3$  and  $R^4$  independently represent a group of formula  $COOR^7$  in which  $R^7$  is a  $C_{4-8}$ alkyl group.

15 5. A compound according to any of the preceding claims, wherein  $R^3$  represents a group of formula  $COOR^7$  in which  $R^7$  is a  $C_{4-8}$ alkyl group and  $R^4$  represents a group of formula  $-(CH_2)_o-O-(CH_2)_p-R^8$  in which  $o$  and  $p$  independently represent an integer 0, 1, 2, 3 or 4  $R^8$  represents phenyl optionally independently substituted by one or more  $Z$  groups.

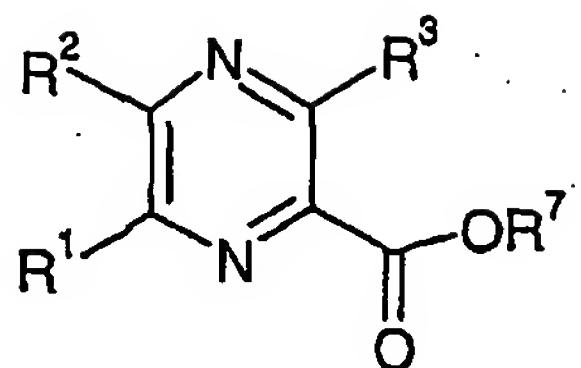
20 6. A compound according to any of the preceding claims, wherein  $R^3$  and  $R^4$  both represent a group of formula  $CONR^{11}R^{12}$  in which  $R^{11}$  and  $R^{12}$  together with the nitrogen atom to which they are attached represent piperidino.

7. A compound according to any of the preceding claims, wherein  $R^3$  represents a group of formula  $COOR^7$  in which  $R^7$  is a  $C_{4-8}$ alkyl group and  $R^4$  represents a group of formula  $R^3$  and  $R^4$  independently represent a group of formula  $-(CH_2)_m-O-(CO)-R^{10}$  in which  $m$  represents an integer 0, 1, 2, 3 or 4, in which  $R^{10}$  represents a  $C_{1-12}$ alkyl group optionally substituted by one or more fluoro, hydroxy, or amino or  $R^{10}$  represents phenyl optionally substituted by one or more groups represented by  $Z$  which may be the same or different.

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8. A compound according to any of the preceding claims, wherein  $R^3$  and  $R^4$  are identical.

9. A compound of formula I according to claim 1 as represented by formula II



II

in which R<sup>1</sup> and R<sup>2</sup> are both 4-chlorophenyl;

5 R<sup>3</sup> represents dihydrooxazolyl, (3-oxa-1-azaspiro[4.4]nonenyl), oxazolyl or tetrazol-2-ylmethyl optionally substituted by phenyl or a C<sub>1-4</sub>alkyl group; and

R<sup>7</sup> represents a C<sub>4-12</sub>alkyl group, a C<sub>3-12</sub>cycloalkyl group or a (C<sub>3-12</sub>cycloalkyl)C<sub>1-3</sub>alkyl-group each of which is optionally substituted by one or more of the following: a C<sub>1-6</sub>alkyl group; fluoro, amino or hydroxy.

10 10. A compound selected from one or more of the following:

2,3-bis(4-chlorophenyl)-5,6-bis(piperidin-1-ylcarbonyl)pyrazine,

bis-2,3-(*tert*-butoxy)-5,6-bis(4-chlorophenyl)pyrazine-2,3-dicarboxylate,

5,6-bis(4-chlorophenyl)-3-(4,4-dimethyl-4,5-dihydrooxazol-2-yl)-pyrazine-2-carboxylic acid

15 *tert*-butylester,

5,6-bis(4-chlorophenyl)-3-(3-oxa-1-azaspiro[4.4]non-1-en-2-yl)-pyrazine-2-carboxylic acid *tert*-butylester,

5,6-bis(4-chlorophenyl)-3-(4-methyl-4,5-dihydrooxazol-2-yl)-pyrazine-2-carboxylic acid *tert*-butylester,

20 5,6-bis(4-chlorophenyl)-3-(4-methyloxazol-2-yl)-pyrazine-2-carboxylic acid *tert*-butylester,

5,6-bis(4-chlorophenyl)-3-(4-phenyloxazol-2-yl)-pyrazine-2-carboxylic acid *tert*-butylester,

5,6-bis(4-chlorophenyl)-3-(5-phenyl-4,5-dihydrooxazol-2-yl)-pyrazine-2-carboxylic acid *tert*-butylester,

25 *tert*-butyl 5,6-bis(4-chlorophenyl)-3-(2*H*-tetrazol-2-ylmethyl)pyrazine-2-carboxylate and pharmaceutically acceptable salts thereof.

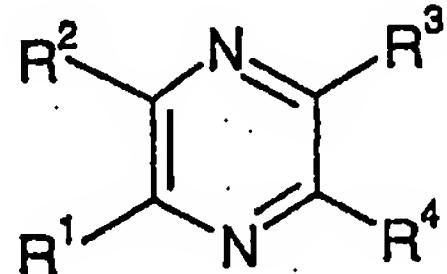
11. A compound of formula I as claimed in any previous claim for use as a medicament.

12. A pharmaceutical formulation comprising a compound of formula I according to any of the claims 1-10, as defined in any either claim 1 or claim 2 and a pharmaceutically acceptable adjuvant, diluent or carrier.

5 13. Use of a compound of formula I according to any of the claims 1-10 in the preparation of a medicament for the treatment or prophylaxis of obesity, psychiatric disorders such as psychotic disorders, schizophrenia and bipolar disorders, anxiety, anxi-depressive disorders, depression, cognitive disorders, memory disorders, obsessive-compulsive disorders, anorexia, bulimia, attention disorders, epilepsy, and related conditions, and neurological disorders such as dementia, neurological disorders, Parkinson's Disease, Huntington's Chorea and 10 Alzheimer's Disease, immune, cardiovascular, reproductive and endocrine disorders, septic shock, diseases related to the respiratory and gastrointestinal systems, and extended abuse, addiction and/or relapse indications.

15 14. Use of a compound of formula (Ia) and pharmaceutically acceptable salts thereof, in the preparation of a medicament for the treatment or prophylaxis of obesity, psychiatric disorders such as psychotic disorders, schizophrenia and bipolar disorders, anxiety, anxi-depressive disorders, depression, cognitive disorders, memory disorders, obsessive-compulsive disorders, anorexia, bulimia, attention disorders, epilepsy, and related conditions, and neurological 20 disorders such as dementia, neurological disorders, Parkinson's Disease, Huntington's Chorea and Alzheimer's Disease, immune, cardiovascular, reproductive and endocrine disorders, septic shock, diseases related to the respiratory and gastrointestinal systems, and extended abuse, addiction and/or relapse indications, wherein Formula Ia has the following general formula:

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Ia

in which R<sup>1</sup> and R<sup>2</sup> independently represent phenyl, thienyl or pyridyl each of which is independently optionally substituted by one or more groups represented by Z;

Z represents a C<sub>1-8</sub>alkyl group, a C<sub>1-6</sub>alkoxy group, hydroxy, halo, trifluoromethyl, trifluoromethylthio, trifluoromethoxy, trifluoromethylsulphonyl, nitro, mono or di C<sub>1-3</sub>alkylamido, C<sub>1-3</sub>alkylsulphonyl, C<sub>1-3</sub>alkylsulphonyloxy, C<sub>1-3</sub>alkoxycarbonyl, carboxy, cyano, carbamoyl, mono or di C<sub>1-3</sub>alkyl carbamoyl, sulphamoyl, acetyl, an aromatic heterocyclic group which is optionally substituted by one or more halo, C<sub>1-4</sub>alkyl, trifluoromethyl or trifluoromethoxy and a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more heteroatoms selected from nitrogen, oxygen or sulphur wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups, hydroxy, fluoro, 10 benzyl or an amino group -NR<sup>x</sup>R<sup>y</sup> in which R<sup>x</sup> and R<sup>y</sup> independently represent H or C<sub>1-4</sub>alkyl;

R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula (CH<sub>2</sub>)<sub>n</sub>COOR<sup>7</sup>

in which n is 0, 1, 2, 3 or 4; and R<sup>7</sup> represents a C<sub>1-12</sub>alkyl group, a C<sub>3-12</sub>cycloalkyl group or a (C<sub>3-12</sub>cycloalkyl)C<sub>1-3</sub>alkyl- group each of which is optionally substituted by one or more of the following: a C<sub>1-6</sub>alkyl group; fluoro, amino or hydroxy, or

R<sup>7</sup> represents a group -(CH<sub>2</sub>)<sub>a</sub>phenyl in which a is 0, 1, 2, 3 or 4 and the phenyl group is optionally substituted by one or more groups represented by Z which may be the same or 20 different or

R<sup>7</sup> represents a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more of the following: oxygen, sulphur or nitrogen; wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups, C<sub>1-3</sub>acyl groups, 25 hydroxy, amino or benzyl; or

R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula -(CH<sub>2</sub>)<sub>o</sub>-O-(CH<sub>2</sub>)<sub>p</sub>- R<sup>8</sup> in which o and p independently represent an integer 0, 1, 2, 3 or 4 and R<sup>8</sup> represents a C<sub>1-12</sub>alkyl group or R<sup>8</sup> represents phenyl optionally independently substituted by one or more Z groups or R<sup>8</sup> 30 represents an aromatic heterocyclic group or a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more of the following: oxygen, sulphur or nitrogen wherein each of these rings is optionally substituted by one or more groups represented by Z which may be the same or different;

R<sup>3</sup> and R<sup>4</sup> independently represent a C<sub>1-12</sub>alkyl group optionally substituted by one or more fluoro, hydroxy, or amino; or

5 R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula -(CH<sub>2</sub>)<sub>q</sub>R<sup>9</sup> in which q is 0, 1, 2, 3 or 4 and R<sup>9</sup> represents a C<sub>3-12</sub>cycloalkyl group, phenyl, an aromatic heterocyclic group or a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more of one following: oxygen, sulphur or nitrogen wherein each of these rings is optionally substituted by one or more groups represented by Z which may be the same or different; or

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R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula -(CH<sub>2</sub>)<sub>m</sub>-O-(CO)- R<sup>10</sup> in which m represents an integer 0, 1, 2, 3 or 4, in which R<sup>10</sup> represents a C<sub>1-12</sub>alkyl group optionally substituted by one or more fluoro, hydroxy, or amino or R<sup>10</sup> represents a group of formula -(CH<sub>2</sub>)<sub>q</sub>R<sup>9</sup> in which

15 q and R<sup>9</sup> is as previously described;

or

R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula CONR<sup>11</sup>R<sup>12</sup>

in which

R<sup>11</sup> and R<sup>12</sup> independently represent a C<sub>1-6</sub>alkyl group;

20 an (amino)C<sub>1-4</sub>alkyl- group in which the amino is optionally substituted by one or more C<sub>1-3</sub>alkyl groups;

a (C<sub>3-12</sub>cycloalkyl)(CH<sub>2</sub>)<sub>g</sub>- group wherein g is 0, 1, 2 or 3 wherein the cycloalkyl is optionally substituted by one or more fluoro, hydroxy, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkoxy, C<sub>1-3</sub>alkoxycarbonyl, trifluoromethyl, amino or trifluoromethoxy;

25 a group -(CH<sub>2</sub>)<sub>r</sub>(phenyl), in which r is 0, 1, 2, 3 or 4, s is 1 when r is 0 otherwise s is 1 or 2 and the phenyl groups are optionally independently substituted one or more groups represented by Z;

naphthyl;

anthracenyl;

30 a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more heteroatoms selected from nitrogen, oxygen or sulphur wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups, hydroxy, fluoro, trifluoromethyl, benzyl or an amino group -NR<sup>x</sup>R<sup>y</sup> in which R<sup>x</sup> and R<sup>y</sup> independently represent H or C<sub>1-4</sub>alkyl;

1-adamantylmethyl;

a group - (CH<sub>2</sub>)<sub>t</sub> Het in which t is 0,1, 2, 3 or 4, and the alkylene chain is optionally substituted by one or more C<sub>1-3</sub>alkyl groups and Het represents an aromatic heterocyclic group optionally substituted by one, two or three groups selected from a C<sub>1-5</sub>alkyl group, a C<sub>1-5</sub>alkoxy group or halo;

or R<sup>11</sup> represents H and R1<sup>2</sup> is as defined above;

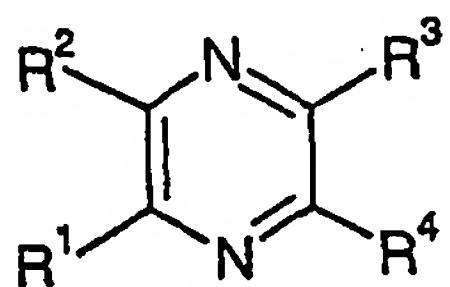
or R<sup>11</sup> and R1<sup>2</sup> together with the nitrogen atom to which they are attached represent a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one nitrogen and optionally one of the following: oxygen, sulphur or an additional nitrogen; wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups, hydroxy, fluoro, trifluoromethyl, trifluoromethoxy, benzyl, C<sub>1-6</sub>alkanoyl or an amino group - NR<sup>x</sup>R<sup>y</sup> in which R<sup>x</sup> and R<sup>y</sup> independently represent H or C<sub>1-4</sub>alkyl;

with the proviso that when one of R<sup>3</sup> and R<sup>4</sup> is a C<sub>1-3</sub>alkyl group, a C<sub>1-3</sub>alkoxymethyl group, trifluoromethyl, a hydroxyC<sub>1-3</sub>alkyl group, C<sub>1-3</sub>alkoxycarbonyl, carboxy, carbamoyl, or mono 15 or di C<sub>1-3</sub>alkylcarbamoyl then the other does not represent a group of formula CONR<sup>11</sup>R<sup>12</sup>.

15. A method of treating obesity, psychiatric disorders, psychotic disorders, schizophrenia and bipolar disorders, anxiety, anxi-depressive disorders, depression, cognitive disorders, memory disorders, obsessive-compulsive disorders, anorexia, bulimia, attention disorders, 20 epilepsy, and related conditions, neurological disorders, neurological disorders, Parkinson's Disease, Huntington's Chorea and Alzheimer's Disease, immune, cardiovascular, reproductive and endocrine disorders, septic shock, diseases related to the respiratory and gastrointestinal system, and extended abuse, addiction and/or relapse indications, comprising administering a pharmacologically effective amount of a compound of formula I according to 25 any of the claims 1-10 to a patient in need thereof.

16. A method of treating obesity, psychiatric disorders, psychotic disorders, schizophrenia and bipolar disorders, anxiety, anxi-depressive disorders, depression, cognitive disorders, memory disorders, obsessive-compulsive disorders, anorexia, bulimia, attention disorders, 30 epilepsy, and related conditions, neurological disorders, neurological disorders, Parkinson's Disease, Huntington's Chorea and Alzheimer's Disease, immune, cardiovascular, reproductive and endocrine disorders, septic shock, diseases related to the respiratory and gastrointestinal system, and extended abuse, addiction and/or relapse indications, comprising

administering a pharmacologically effective amount of a compound of formula Ia to a patient in need thereof, wherein Formula Ia has the following general formula:



Ia

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in which R<sup>1</sup> and R<sup>2</sup> independently represent phenyl, thienyl or pyridyl each of which is independently optionally substituted by one or more groups represented by Z;

Z represents a C<sub>1-8</sub>alkyl group, a C<sub>1-6</sub>alkoxy group, hydroxy, halo, trifluoromethyl, 10 trifluoromethylthio, trifluoromethoxy, trifluoromethylsulphonyl, nitro, mono or di C<sub>1-3</sub>alkylamido, C<sub>1-3</sub>alkylsulphonyl, C<sub>1-3</sub>alkylsulphonyloxy, C<sub>1-3</sub>alkoxycarbonyl, carboxy, cyano, carbamoyl, mono or di C<sub>1-3</sub>alkyl carbamoyl, sulphamoyl, acetyl, an aromatic heterocyclic group which is optionally substituted by one or more halo, C<sub>1-4</sub>alkyl, trifluoromethyl or trifluoromethoxy and a saturated or partially unsaturated 5 to 8 membered heterocyclic group 15 containing one or more heteroatoms selected from nitrogen, oxygen or sulphur wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups, hydroxy, fluoro, benzyl or an amino group -NR<sup>x</sup>R<sup>y</sup> in which R<sup>x</sup> and R<sup>y</sup> independently represent H or C<sub>1-4</sub>alkyl;

R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula (CH<sub>2</sub>)<sub>n</sub>COOR<sup>7</sup>

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in which n is 0, 1, 2, 3 or 4; and R<sup>7</sup> represents a C<sub>1-12</sub>alkyl group, a C<sub>3-12</sub>cycloalkyl group or a (C<sub>3-12</sub>cycloalkyl)C<sub>1-3</sub>alkyl- group each of which is optionally substituted by one or more of the following: a C<sub>1-6</sub>alkyl group; fluoro, amino or hydroxy, or

25 R<sup>7</sup> represents a group -(CH<sub>2</sub>)<sub>a</sub>phenyl in which a is 0, 1, 2, 3 or 4 and the phenyl group is optionally substituted by one or more groups represented by Z which may be the same or different or

R<sup>7</sup> represents a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more of the following: oxygen, sulphur or nitrogen; wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups, C<sub>1-3</sub>acyl groups, hydroxy, amino or benzyl; or

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R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula -(CH<sub>2</sub>)<sub>o</sub>-O-(CH<sub>2</sub>)<sub>p</sub>-R<sup>8</sup> in which o and p independently represent an integer 0, 1, 2, 3 or 4 and R<sup>8</sup> represents a C<sub>1-12</sub>alkyl group or R<sup>8</sup> represents phenyl optionally independently substituted by one or more Z groups or R<sup>8</sup> represents an aromatic heterocyclic group or a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more of the following: oxygen, sulphur or nitrogen wherein each of these rings is optionally substituted by one or more groups represented by Z which may be the same or different;

R<sup>3</sup> and R<sup>4</sup> independently represent a C<sub>1-12</sub>alkyl group optionally substituted by one or more fluoro, hydroxy, or amino; or

R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula -(CH<sub>2</sub>)<sub>q</sub>R<sup>9</sup> in which q is 0, 1, 2, 3 or 4 and R<sup>9</sup> represents a C<sub>3-12</sub>cycloalkyl group, phenyl, an aromatic heterocyclic group or a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more of the following: oxygen, sulphur or nitrogen wherein each of these rings is optionally substituted by one or more groups represented by Z which may be the same or different; or

R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula -(CH<sub>2</sub>)<sub>m</sub>-O-(CO)-R<sup>10</sup> in which m represents an integer 0, 1, 2, 3 or 4, in which R<sup>10</sup> represents a C<sub>1-12</sub>alkyl group optionally substituted by one or more fluoro, hydroxy, or amino or R<sup>10</sup> represents a group of formula -(CH<sub>2</sub>)<sub>q</sub>R<sup>9</sup> in which

q and R<sup>9</sup> is as previously described;

or

R<sup>3</sup> and R<sup>4</sup> independently represent a group of formula CONR<sup>11</sup>R<sup>12</sup> in which

R<sup>11</sup> and R<sup>12</sup> independently represent a C<sub>1-6</sub>alkyl group;

an (amino)C<sub>1-4</sub>alkyl- group in which the amino is optionally substituted by one or more C<sub>1-3</sub>alkyl groups;

a  $(C_{3-12}\text{cycloalkyl})(CH_2)_g$ - group wherein g is 0, 1, 2 or 3 wherein the cycloalkyl is optionally substituted by one or more fluoro, hydroxy,  $C_{1-3}\text{alkyl}$ ,  $C_{1-3}\text{alkoxy}$ ,  $C_{1-3}\text{alkoxycarbonyl}$ , trifluoromethyl, amino or trifluoromethoxy;

a group  $-(CH_2)_r(\text{phenyl})_s$  in which r is 0, 1, 2, 3 or 4, s is 1 when r is 0 otherwise s is 1 or 2 and the phenyl groups are optionally independently substituted one or more groups represented by Z;

naphthyl;

anthracenyl;

a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or 10 more heteroatoms selected from nitrogen, oxygen or sulphur wherein the heterocyclic group is optionally substituted by one or more  $C_{1-3}\text{alkyl}$  groups, hydroxy, fluoro, trifluoromethyl, benzyl or an amino group  $-\text{NR}^x\text{R}^y$  in which  $\text{R}^x$  and  $\text{R}^y$  independently represent H or  $C_{1-4}\text{alkyl}$ ;

1-adamantylmethyl;

a group  $-(CH_2)_t\text{Het}$  in which t is 0, 1, 2, 3 or 4, and the alkylene chain is optionally 15 substituted by one or more  $C_{1-3}\text{alkyl}$  groups and Het represents an aromatic heterocyclic group optionally substituted by one, two or three groups selected from a  $C_{1-5}\text{alkyl}$  group, a  $C_{1-5}\text{alkoxy}$  group or halo;

or  $\text{R}^{11}$  represents H and  $\text{R}^{12}$  is as defined above;

or  $\text{R}^{11}$  and  $\text{R}^{12}$  together with the nitrogen atom to which they are attached represent a 20 saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one nitrogen and optionally one of the following: oxygen, sulphur or an additional nitrogen; wherein the heterocyclic group is optionally substituted by one or more  $C_{1-3}\text{alkyl}$  groups, hydroxy, fluoro, trifluoromethyl, trifluoromethoxy, benzyl,  $C_{1-6}\text{alkanoyl}$  or an amino group  $-\text{NR}^x\text{R}^y$  in which  $\text{R}^x$  and  $\text{R}^y$  independently represent H or  $C_{1-4}\text{alkyl}$ ;

25 with the proviso that when one of  $\text{R}^3$  and  $\text{R}^4$  is a  $C_{1-3}\text{alkyl}$  group, a  $C_{1-3}\text{alkoxymethyl}$  group, trifluoromethyl, a hydroxy $C_{1-3}\text{alkyl}$  group,  $C_{1-3}\text{alkoxycarbonyl}$ , carboxy, carbamoyl, or mono or di  $C_{1-3}\text{alkylcarbamoyl}$  then the other does not represent a group of formula  $\text{CONR}^{11}\text{R}^{12}$ .

17. A compound according to any of the claims 1-10 for use in the treatment of obesity.

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